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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,950	04/13/2004	Michael J. Dougherty	25492	5453

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EXAMINER	
CORDRAY, DENNIS R	
ART UNIT	PAPER NUMBER
1731	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/06/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/06/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@weyerhaeuser.com

Office Action Summary	Application No.	Applicant(s)	
	10/823,950	DOUGHERTY ET AL.	
	Examiner	Art Unit	
	Dennis Cordray	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/12/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's amendments, filed 10/17/2006, have overcome the objections to the Specification. Applicant's arguments and amendments have been fully considered but fail to overcome the previous rejections because they introduce new matter as detailed in the rejections below.

2. Also, due to the amendments, new grounds of rejection are made.

Drawings

3. The drawings were received on 10/17/2006. These drawings are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, as amended, recites the negative limitation, "in the absence of other supporting particles," which limitation is unsupported in the Specification as filed. Nowhere in the Specification is a discussion presented that teaches that the paper is coated with calcium carbonate in the absence of other supporting particles. Example 3 recites that the calcium carbonate was applied without

the use of a binder, but fails to recite that no other supporting particles were used. A recitation of a portion of MPEP 2173.05(i) follows:

> 2173.05(i) Negative Limitations Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See In re Johnson, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also Ex parte Grasselli, 231 USPQ 393 (Bd. App. 1983), aff 'd mem., 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claims 2-18 depend from thus inherit the limitations of Claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, as amended, recites the limitation, "in the absence of other supporting particles." Neither the claim nor the Specification defines what is meant by "supporting particles." Paper typically comprises cellulosic fibers, which are particles, and the fibers

support the calcium carbonate. Paper typically comprises cellulosic fibers, which are particles, and the fibers support the calcium carbonate, thus supporting particles are present. Almost all of the embodiments recited in the Specification indicate application of the particles with a binder, such as starch, modified starch or synthetic polymers or copolymers (see p 3, lines 9-10 and Examples 1 and 4-9), which are often provided in the form of a dispersion of organic particles, thus providing supporting particles. Without a definition of what constitutes a supporting particle, the metes and bounds of the claimed subject matter are not clear.

Claims 2-18 depend from thus inherit the indefiniteness of Claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 4-7, 10-13 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Dettling et al (6413591) as evidenced by Peel (Paper Science & Paper Manufacture 1999).

Dettling et al discloses a method of coating a paper with a composition comprising calcium carbonate (placing the calcium carbonate on the web) without using a binder or other supporting particles (Abs; col 7,lines 18-24). The particles are adhered to the web by hydrogen bonding forces. The coating contains fines, fibrils, fibers and/or pigments, thus can comprise essentially all calcium carbonate in some embodiments (col 3, lines 33-40). In any case, the other particles are not used as supports but as part of the coating material. A preferred pigment is precipitated calcium carbonate having a particle size from 40 nm to 2 μm (col 6, lines 2-5), which overlays the claimed ranges. The coating weight is from 2 to 100% (40 to 2000 lb/ton) of the grammage of the web (col 3, lines 33-39). The coatings improve the quality of printing on the paper (col 5, line 67 to col 6, line 4).

Dettling et al discloses coating a wet or dry web and drying the coated web (col 5, lines 40-43). Thus, the paper can be coated and then dried or dried and then coated, and dried again. Dettling et al uses a blade coater (a coating apparatus) in a recited example.

Dettling et al discloses coating a base paper with 13-15 g/m^2 in the wet stage of a composition containing calcium carbonate having a particle size from 50 to 100 nm, which is within the claimed ranges. The wet coating composition has 60% solids

content, thus the amount of solids applied is from 7.8 to 9 g/m^2 (col 7, lines 41-52). The instant Specification teaches in the background section (p 2, lines 5-6) that printing paper has a basis weight from 16 to 180 lb/3300 ft^2 (approx. 22 to 267 g/m^2). Using a paper with a basis weight of 200 g/m^2, for example, the amount of coating used in the example of Dettling et al is from 3.9 to 4.5%, or from 78 to 90 lb/ton, which lies within the claimed ranges of application.

The steps of forming a wet web of cellulosic fibers and removing water from the web are standard papermaking operations and would have been obvious to one of ordinary skill in the art (for evidence see Peel, p90, Figure 5.2, which diagrams standard papermaking operations).

7. Claims 2-3, 8-9 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dettling et al in view of Tokiyoshi et al (5418057).

Dettling et al does not disclose using a size press or spray to apply the coating.

Tokiyoshi et al discloses a paper coated with a composition comprising fine particle precipitated calcium carbonate (Abs; col 6, lines 32-40). The coating can be applied either on- or off-machine by generally known equipment, including a blade coater, size press, coating unit or spray coater (col 7, lines 36-45).

The art of Dettling et al, Tokiyoshi et al and the instant invention are analogous as pertaining to the application of coatings comprising fine particle calcium carbonate to papers. It would have been obvious to one of ordinary skill in the art at the time of the

invention to use a size press or spray coater to coat the paper of Mason et al in view of Tokiyoshi et al as well known and functionally equivalent options.

8. Claims 1-14 and 16-18 are rejected under 35 U.S.C. 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mason et al (WO 03/078734 A1).

Mason et al discloses paper sheets surface coated with a composition (placed on the web) comprising calcium carbonate nanoparticles with particle sizes of from 5 to 500 nm, preferably from 10-100 nm, and more preferably from 15-50 nm. In some embodiments, the particle size can be from 10 to 200 nm (Abs; p 3, line 15 to p 4, line 5; p 4, lines 17-25). The nanoparticles are retained in the surface layer to give excellent printing properties (p 4, lines 1-5).

Mason et al discloses a method for applying the surface coating using a conventional surface sizing unit, such as a size press, or a coating unit (p 8, lines 6-13; Claims 25-29). The unit can be integrated into the paper machine or as a separate unit (off-machine). The coating is preferably done when the web is at least 75% dry (before the final drying step), or more preferably at least 90% dry (after the drying step). It would have been obvious to one of ordinary skill in the art at the time of the invention to coat the paper either before or after drying as well known and functionally equivalent processes. The steps of forming a wet web of cellulosic fibers and removing water from the web are standard papermaking operations and would have been obvious to one of ordinary skill in the art.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al in view of Tokiyoshi et al (5418057).

Mason et al does not disclose coating by a spray coater.

Tokiyoshi et al discloses a paper coated with a composition comprising fine particle precipitated calcium carbonate (Abs; col 6, lines 32-40). The coating can be applied either on- or off-machine by generally known equipment including a size press, coating unit or spray coater (col 7, lines 36-45).

The art of Mason et al, Tokiyoshi et al and the instant invention are analogous as pertaining to the application of coatings comprising fine particle calcium carbonate to papers. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a spray coater to coat the paper of Mason et al in view of Tokiyoshi et al as a well known and functionally equivalent option.

Double Patenting

10. Claims 1-18 of this application conflict with claims 1-18 of Application No. 11/155411. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or

discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-18 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-18 of copending Application No. 11/155411. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DRC

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